

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (original): A method for routing a transaction to a front-end server, comprising:

- identifying at least one attribute-based category for said transaction;
- identifying at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category; and
- routing said transaction to one of said at least one identified front-end servers.

Claim 2 (original): A method as in claim 1, further comprising assigning said at least one attribute-based category to said transaction.

Claim 3 (original): A method as in claim 2, wherein assigning said at least one attribute-based category to said transaction comprises associating a tag with said transaction.

Claim 4 (original): A method as in claim 1, wherein identifying said at least one front-end server comprises comparing said attribute-based category for said transaction to assigned attribute-based categories for said plurality of front-end servers.

Claim 5 (original): A method as in claim 1, further comprising determining whether said at least one front-end server is available for processing said transaction.

Claim 6 (original): A method as in claim 1, further comprising rerouting said transaction to another of said plurality of front-end servers when said identified server refuses said transaction.

Claim 7 (original): A method as in claim 1, further comprising determining when said identified attribute-based category is new and assigning said new attribute-based category to at least one of said plurality of front-end servers.

Claim 8 (original): A method as in claim 7, further comprising notifying a workload manager of said at least one front-end server assigned to said new attribute-based category.

Claim 9 (original): A method as in claim 1, further comprising:
determining a status of an attribute-based category; and
deallocating said attribute-based category from said front-end server to which it is assigned when said status is inactive.

Claim 10 (original): An apparatus for routing a transaction to a front-end server, comprising:

computer readable storage media;
computer readable program code stored on said computer readable storage media, comprising:

- a) program code for identifying at least one attribute-based category for said transaction;
- b) program code for identifying at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category; and
- c) program code for routing said transaction to one of said at least one identified front-end server.

Claim 11 (original): An apparatus as in claim 10, further comprising program code for assigning said at least one attribute-based category to said transaction.

Claim 12 (original): An apparatus as in claim 10, wherein said attribute-based category is based on at least one "real" attribute of said transaction.

Claim 13 (original): An apparatus as in claim 10, wherein said attribute-based category is based on at least one "perceived" attribute of said transaction.

Claim 14 (original): An apparatus as in claim 10, further comprising a user table for assigning said at least one attribute-based category to said transaction.

Claim 15 (original): An apparatus as in claim 10, further comprising:
 program code for determining whether said at least one identified server is available for processing said transaction; and
 program code for rerouting said transaction to another of said plurality of servers when at least one identified server is unavailable for processing said transaction.

Claim 16 (original): An apparatus as in claim 10, further comprising program code for assigning a number of attribute-based categories to each of said plurality of front-end servers, wherein said program code for routing said transaction to one of said identified front-end servers routes said transaction according to said assigned attribute-based categories.

Claim 17 (original): An apparatus as in claim 16, wherein said program code for assigning at least one attribute-based category to each of said plurality of servers bases the assignment at least in part on an affinity of transaction attributes.

Claim 18 (original): An apparatus as in claim 16, further comprising a workload manager table for recording said assigned attribute-based categories.

Claim 19 (original): An apparatus as in claim 16, further comprising:
 program code for determining a status for each of said assigned attribute-based categories; and

program code for deallocating said assigned attribute-based categories when said status thereof is inactive.

Claim 20 (original): An apparatus as in claim 10, further comprising program code for determining when said identified attribute-based category is new and assigning said new attribute-based category to at least one of said plurality of front-end servers.

Claim 21 (original): An apparatus for routing a transaction to a server, comprising:
means for identifying at least one attribute-based category for said transaction;
means for identifying at least one of a plurality of servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said servers being assigned to execute transactions corresponding to said attribute-based category; and
means for routing said transaction to one of said at least one identified servers.

Claim 22 (original): An apparatus as in claim 21, further comprising:
means for identifying each of said plurality of servers; and
means for assigning at least one attribute-based category to each of said plurality of servers.

Claim 23 (previously presented): A method as in claim 1, wherein identifying said at least one attribute-based category for said transaction comprises identifying a "perceived" attribute of said transaction.

Claim 24 (previously presented): A method as in claim 23, wherein the identified "perceived" attribute is the computer originating the transaction.

Claim 25 (previously presented): A method as in claim 23, wherein the identified "perceived" attribute is the user originating the transaction.

Claim 26 (previously presented): A method as in claim 23, wherein the identified "perceived" attribute is a class of users from which the transaction originates.

Claim 27 (previously presented): A method as in claim 1, wherein said identifying and routing actions are performed by a workload manager, the method further comprising:

determining, at an identified front-end server, whether the attribute-based category associated with said received transaction is assigned to the identified front-end server, and if it is not, establishing an association between i) the attribute-based category of the received transaction and ii) the identified front-end server.

Claim 28 (previously presented): A method as in claim 27, further comprising:

if the identified front-end server establishes an association between itself and an attribute-based category, broadcasting this association to a plurality of workload managers that can route transactions to the identified front-end server.

Claim 29 (previously presented): A method as in claim 28, further comprising:

upon a workload manager's receipt of said broadcast association, the workload manager updating its own table of assignments between attribute-based categories and front-end servers.

Claim 30 (previously presented): A method as in claim 1, further comprising:

one or more of said front-end servers,

maintaining its own table of attribute-based categories for transactions that it has processed;

for each attribute-based category in its table, maintaining an indication of when a transaction corresponding to the attribute-based category was last processed by the front-end server; and

after a predetermined time of not processing a transaction corresponding to an attribute-based category in its table, broadcasting an indication of this event to a plurality of workload managers that can route transactions to the front-end server.

Claim 31 (previously presented): A method as in claim 30, further comprising:
 upon a workload manager's receipt of said broadcast indication, the workload manager updating its own table of assignments between attribute-based categories and front-end servers.

Claim 32 (previously presented): An apparatus as in claim 10, further comprising program code to update, in response to broadcast indications from said front-end servers, a table of which attribute-based categories are assigned to which front-end servers, said table being maintained by and for a particular workload manager.

Claim 33 (previously presented): A method for routing a transaction to a front-end server, comprising:

 maintaining a table at a workload manager, the table comprising indications of which attribute-based categories of transactions are assigned to which of a plurality of front-end servers;

 periodically updating the table in response to broadcasts received from said front-end servers;

 upon receiving said transaction at the workload manager,

 identifying at least one attribute-based category for the transaction;

 identifying at least one of the plurality of front-end servers to process the transaction based at least in part on said identified attribute-based category of said transaction and at least in part on whether said table comprises an indication that said identified attribute-based category is assigned to one of said front-end servers; and

 routing said transaction to one of said at least one identified front-end servers.